MODIS TECHNICAL TEAM MEETING

October 27, 1994

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were Steve Ungar, Wayne Esaias, Bill Barnes, David Herring, Dick Weber, Harry Montgomery, Rosemary Vail, Dorothy Hall, Joann Harnden, Bruce Guenther, Locke Stuart, Ed Masuoka, Al Fleig, Yoram Kaufman, and John Barker.

1.0 SCHEDULE OF EVENTS

Nov. 1	Revisions of ATBDs receiving a grade of A or B due to EOS Project Science Office
Dec. 31	Revisions of ATBDs receiving a grade of C or D due to EOS Project Science Office
Jan. 15, 1995	Semi-annual reports due to Barbara Conboy

2.0 MINUTES OF THE MEETING

2.1 Educational Outreach

Salomonson began the meeting by discussing a conversation he had with Marguerite Schier at JPL concerning educational outreach efforts that the AIRS team has begun. Salomonson responded to her that MODIS is not actively pursuing any efforts that could be classified as educational outreach. Videos of the MODIS instrument and brochures, etc., are available, but probably don't meet the criteria. For the time being, Salomonson said that he feels MODIS can wait to see what policies develop at Goddard with regard to educational outreach programs for instruments and projects. At the present the Earth Sciences Directorate at Goddard is actively pursuing educational outreach efforts that can include MODIS along with a wide variety of activities on-going in the Directorate. Team members are encouraged to offer their opinions about the advisability of MODIS trying to do something specific in this category.

2.2 MODIS Project Reports

Weber announced that he is going to visit the Hughes El Segundo facility next month. Some MODIS personnel, particularly software people, are already resigning from SBRC due to the planned relocation. He reported that the replan proposal will arrive from SBRC next month.

Weber reported that Gerry Godden, of the MODIS Calibration Support Team, is traveling to Breault on Oct. 31 to discuss MODIS scattering and to validate their MODIS description to insure that their scattered light modeling results are realistic.

Barnes stated that he and MCST are close to determining what, if any, spacecraft maneuvers are required for MODIS to view the moon and space for calibration and characterization purposes.

2.3 MCST Reports

Guenther reported that the briefing to the Science Team on MCST's revised concepts for the calibration ATBD went well. MCST will provide a separate briefing to the Team Leader on Monday.

Guenther announced that he is preparing an MCST management plan to ensure that everyone in that group is "on the same page". The management plan will provide the basis for monitoring costs on the new contract.

Guenther stated that during the Science Team Meeting, Bob Evans asked MCST to study the stray light features of AVHRR that may be similar to MODIS. Guenther stated that MCST will study AVHRR when they have completed their study of MODIS.

Esaias was complimentary of the job MCST is doing in planning MODIS' calibration. He said that Evans feels that he can now work with MODIS Level 1B data as a starting point.

2.4 SDST Reports

Masuoka reported attending the EOS IWG meeting, at which Steve Wharton presented a strawman allocation of processing resources for MODIS given the current EOSDIS baseline allocation of storage and processing resources. Salomonson asked if, given the strawman MODIS allocation, EOSDIS can process and store Level 1A and 1B data. Masuoka responded affirmatively and said that enough MFLOPS were available to complete portions of the Level 2 products. Masuoka added that Hughes is modeling the EOSDIS based on input from the instrument teams and will determine where the major cost drivers are in the system. If enough money can be saved in other areas, more could be spent on processing resources, MFLOPS.

Fleig cautioned the Technical Team that if the MODIS allocation is matched precisely to the stated processing requirement, then it won't be enough. There may be perturbations in the processing which, if the 100 percent of the allocation is consumed by the processing, could periodically cause the system to fail. Additionally, Fleig pointed out that there will likely be in increase in the estimated processing needs due to new scientific discoveries between now and launch. Moreover, he explained that data products must be made several times before they will be clean enough for public release. In short, he said, MODIS very likely will require several times the estimated capacity to process and store its data products, and currently it has been allocated less than one time its requirement.

Masuoka said that he and Chris Justice met with R.J. Thompson and Tony Butzer from EROS Data Center to discuss collaborative research plans for the high-speed ATM link between EDC and the MODIS TLCF that is being established this year through a multi-year proposal funded by ARPA (Advanced Research Projects Agency) with some additional funds from EOSDIS project.

Masuoka reported that he will need help from the MODIS Team in completing a draft plan for quality assurance and preparing a MODIS data products catalog in November.

2.5 Ocean Group Reports

Esaias reported that the Primary Productivity meeting was very successful. By Dec. 1, the Ocean Group will release a test data set to various interested scientists enabling them to compute daily primary productivity. This computation will be conducted as a blind experiment to see how disparate the measurements are.

Esaias announced that the Ocean ATBDs are being revised and should be resubmitted by the deadline.

Esaias said he is pleased to hear that Dr. Charles Kennel, NASA Associate Administrator for the Office of Mission to Planet Earth, is advocating a workshop to address issues relating to remote sensing of the coastal zone. Dr. Oscar Huh, Louisiana State University, is on the list of attendees for that workshop.

2.6 Atmosphere Group Reports

Kaufman stated that he hopes MODIS will take 1.65 µm and 2.1 µm data at night because he assumes in his algorithm that it does. (Barnes noted after the meeting that there are currently no plans for MODIS to take data at night in these bands.)

Kaufman reported that Dave Diner, MISR principal investigator, gave an excellent presentation on his work in remote sensing of aerosols at the Atmosphere IWG. Salomonson observed that it might be useful for Kaufman to give a presentation on MODIS' atmospheric science contributions at the next IWG. He encouraged Kaufman to consult Michael King on the idea.

Kaufman reported that he reviewed latest draft of the MODIS Brochure and made substantial changes in the text. He still feels some level of discomfort with it and recommends that it should be closely reviewed by the Team, as well as by other people within the Earth Science Directorate.

2.7 MAST Reports

Herring reported that the minutes from each of the MODIS Discipline Group Meetings have been completed and sent out for review by the respective group leaders. Herring expects to have the first draft of the entire set of Science Team Minutes completed by early next week and will distribute them for review.

The next MODIS Science Team Meeting is tentatively scheduled for May 3 - 5, 1995. Herring recommended that the meeting be topic-centric rather than discipline-centric. In short, the forum for the next meeting may place greater emphasis on cross-disciplinary discussions of important topics, rather than splitting up into different discipline groups. This topic will be discussed further in subsequent Technical Team Meetings.

3.0 ACTION ITEMS

3.1 Action Items Carried Forward

1. *MODIS Team*: Determine how, given the MODIS bowtie effect, MODIS images will be produced at launch.
2. *Fleig and Ungar*: Interact with the group leaders prior to develop a MODIS data simulation plan for review at the next Science Team Meeting.